Company	Company Size	Host or Remote	Lines	Total Inv.	Inv. / Line
E	L	H	3,072	$ 2,413,250	$ 786
E	L	R	3,776	$ 869,270	$ 230
E	L	R	3,840	$ 264,410	$ 69
E	L	H	4,392	$ 581,959	$ 133
E	L	R	6,912	$ 506,795	$ 73
E	L	R	8,192	$ 1,681,734	$ 205
E	L	H	8,596	$ 1,301,398	$ 151
E	L	H	8,832	$ 2,476,735	$ 280
E	L	H	14,627	$ 1,506,839	$ 103
E	L	H	19,200	$ 4,073,235	$ 212
E	L	H	37,504	$ 7,136,911	$ 190
E	L	H	43,006	$ 3,608,386	$ 84
E	L	H	58,438	$ 4,442,800	$ 76
E	L	H	89,600	$15,401,911	$ 172
G	M	R	138	$ 219,391	$ 1,590
G	M	H	448	$ 480,665	$ 1,073
G	M	R	568	$ 316,128	$ 557
G	M	H	832	$ 557,551	$ 670
G	M	H	1,510	$ 899,976	$ 596
G	M	R	1,646	$ 934,710	$ 568
G	M	H	3,326	$ 1,062,170	$ 319
G	M	R	3,511	$ 1,378,805	$ 393
G	M	H	5,727	$ 1,685,517	$ 294
G	M	H	8,180	$ 6,727,990	$ 822
G	M	H	11,000	$ 7,824,353	$ 711
H	L	H	342	$ 345,942	$ 1,012
H	L	R	423	$ 608,393	$ 1,438
H	L	R	436	$ 251,469	$ 577
H	L	R	562	$ 564,092	$ 1,004
H	L	H	920	$ 413,595	$ 450
H	L	R	944	$ 316,131	$ 335
H	L	H	1,383	$ 455,863	$ 330
H	L	R	1,447	$ 743,280	$ 514
H	L	R	1,734	$ 329,116	$ 190
H	L	H	2,560	$ 634,783	$ 248
H	L	R	2,793	$ 432,661	$ 155
H	L	H	3,212	$ 1,932,136	$ 602
H	L	R	4,377	$ 1,242,625	$ 284
H	L	H	4,480	$ 2,033,989	$ 454
H	L	R	5,120	$ 1,282,825	$ 251
H	L	R	5,751	$ 590,690	$ 103
H	L	H	6,523	$ 2,438,661	$ 374

Company	Company Size	Host or Remote	Lines	Total Inv.	Inv. / Line
H	L	H	7,680	$ 1,385,930	$ 180
H	L	H	13,504	$ 3,782,275	$ 280
H	L	H	20,396	$ 4,729,945	$ 232
H	L	H	27,933	$ 5,304,658	$ 190
H	L	H	38,459	$10,063,514	$ 262
H	L	H	55,544	$12,624,226	$ 227
H	L	H	92,621	$20,677,012	$ 223
I	L	R	640	$ 223,868	$ 350
I	L	R	931	$ 601,964	$ 647
I	L	H	1,216	$ 1,514,732	$ 1,246
I	L	H	1,350	$ 2,679,579	$ 1,985
I	L	R	1,812	$ 694,152	$ 383
I	L	R	2,112	$ 390,100	$ 185
I	L	R	3,518	$ 523,557	$ 149
I	L	R	4,235	$ 829,702	$ 196
I	L	H	4,439	$ 2,156,964	$ 486
I	L	H	4,468	$ 2,593,455	$ 580
I	L	H	5,853	$ 2,370,333	$ 405
I	L	R	6,141	$ 765,907	$ 125
I	L	R	8,128	$ 1,867,942	$ 230
I	L	H	9,782	$ 2,470,214	$ 253
I	L	H	16,421	$ 3,770,634	$ 230
I	L	H	16,460	$ 2,804,794	$ 170
I	L	H	27,282	$ 5,137,531	$ 188
I	L	H	32,010	$ 7,222,032	$ 226
I	L	H	53,760	$ 8,893,799	$ 165
I	L	H	65,857	$12,610,307	$ 191
L	L	R	470	$ 207,429	$ 441
L	L	R	691	$ 353,041	$ 511
L	L	R	730	$ 357,300	$ 489
L	L	R	1,700	$ 400,743	$ 236
L	L	R	1,800	$ 339,486	$ 189
L	L	R	2,120	$ 363,402	$ 171
L	L	R	2,816	$ 443,296	$ 157
L	L	H	3,720	$ 945,714	$ 254
L	L	H	4,966	$ 1,600,672	$ 322
L	L	H	5,350	$ 2,140,848	$ 400
L	L	H	6,500	$ 2,401,321	$ 369
L	L	H	8,537	$ 2,044,662	$ 240
L	L	H	9,120	$ 2,333,221	$ 256
L	L	H	10,343	$ 1,921,643	$ 186
L	L	H	26,417	$ 4,335,835	$ 164
L	L	H	34,180	$ 6,069,887	$ 178

Company	Company Size	Host or Remote	Lines	Total Inv.	Inv. / Line
M	L	R	110	$ 19,006	$ 173
M	L	R	549	$ 80,070	$ 146
M	L	R	964	$ 171,899	$ 178
M	L	R	1,353	$ 238,688	$ 176
M	L	R	1,669	$ 284,186	$ 170
M	L	H	2,274	$ 312,595	$ 137
M	L	R	2,656	$ 449,241	$ 169
M	L	R	3,443	$ 559,785	$ 163
M	L	H	3,981	$ 562,920	$ 141
M	L	H	4,995	$ 1,250,114	$ 250
M	L	H	6,980	$ 1,037,355	$ 149
M	L	H	7,298	$ 1,905,452	$ 261
M	L	R	7,767	$ 1,125,104	$ 145
M	L	R	8,118	$ 1,218,284	$ 150
M	L	H	13,798	$ 2,444,171	$ 177
M	L	H	20,140	$ 2,711,284	$ 135
M	L	H	31,369	$ 4,356,495	$ 139
M	L	H	44,918	$ 5,929,033	$ 132
M	L	H	64,332	$ 8,921,344	$ 139
M	L	H	69,481	$ 9,371,833	$ 135
N	L	R	512	$ 395,793	$ 773
N	L	R	640	$ 107,284	$ 168
N	L	R	896	$ 424,219	$ 473
N	L	R	1,120	$ 181,087	$ 162
N	L	R	1,920	$ 510,995	$ 266
N	L	R	2,040	$ 257,248	$ 126
N	L	H	2,400	$ 780,182	$ 325
N	L	R	3,200	$ 340,093	$ 106
N	L	H	3,328	$ 1,344,183	$ 404
N	L	R	3,584	$ 668,283	$ 186
N	L	H	4,096	$ 1,298,102	$ 317
N	L	H	5,120	$ 1,192,503	$ 233

Company	Company Size	Host or Remote	Lines	Total Inv.	Inv. / Line
N	L	R	7,168	$ 1,213,459	$ 169
N	L	H	8,960	$ 1,849,292	$ 206
N	L	H	9,440	$ 1,580,752	$ 167
N	L	H	17,856	$ 3,087,591	$ 173
N	L	H	21,120	$ 2,889,305	$ 137
N	L	H	42,048	$ 6,356,371	$ 151
N	L	H	44,800	$ 4,221,414	$ 94
N	L	H	60,392	$ 9,994,814	$ 166
N	L	H	70,080	$ 7,038,031	$ 100
O	L	H	619	$ 168,817	$ 273
O	L	R	1,920	$ 393,306	$ 205
O	L	R	2,560	$ 460,443	$ 180
O	L	R	6,720	$ 1,138,266	$ 169
O	L	H	7,632	$ 3,086,033	$ 404
O	L	H	20,780	$ 4,301,685	$ 207
O	L	H	38,839	$ 6,491,312	$ 167

Appendix D

Fit of BOB Switch Data
Final Run

General Linear Models Procedure

Dependent Variable: PERLINE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	8576443.84511978	8576443.84511978	103.27	0.0001
Error	129	10713686.41404510	83051.83266702		
Corrected Total	130	19290130.25916480			

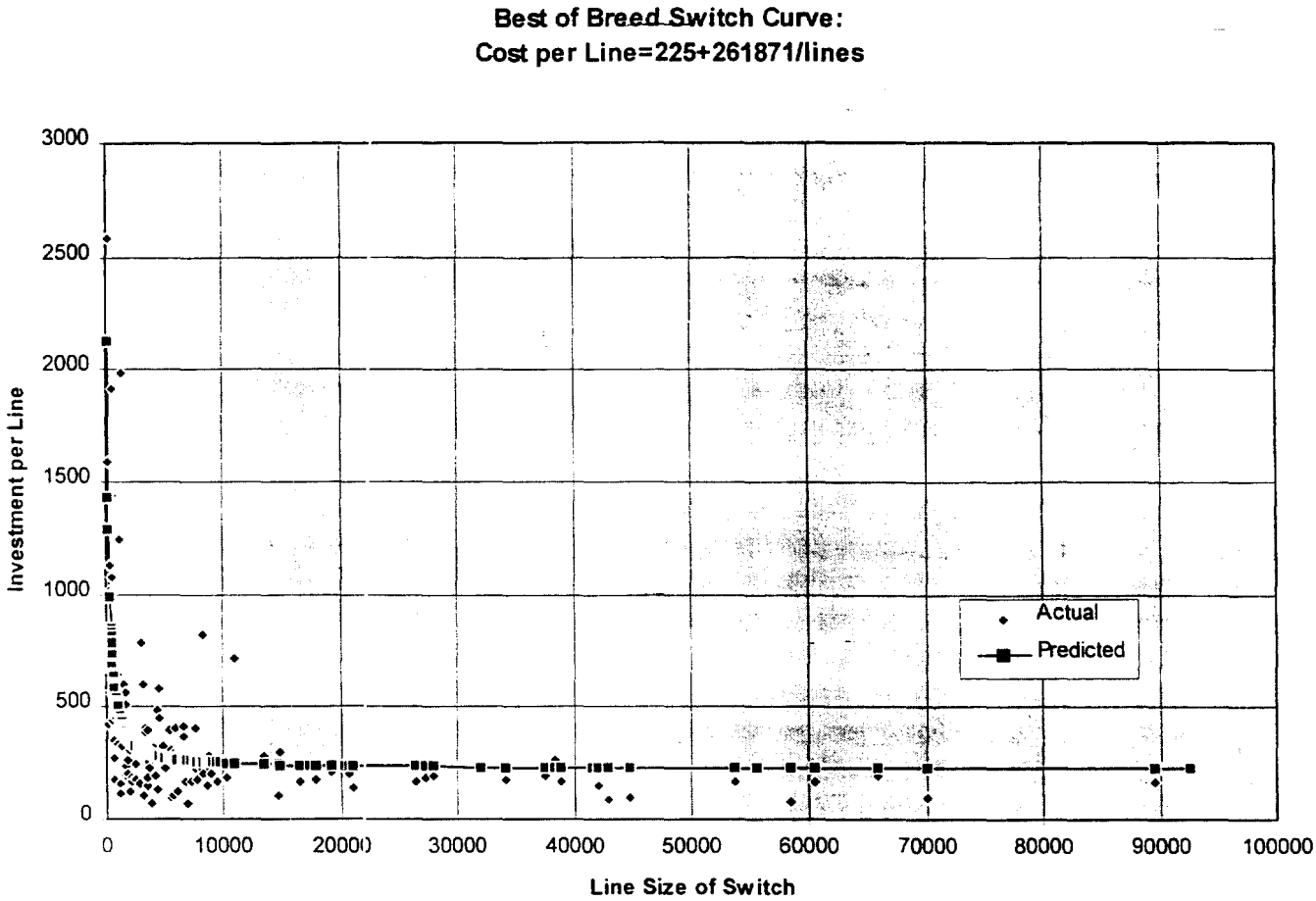
R-Square	C.V.	Root MSE	PERLINE Mean
0.444603	75.72567	288.18714868	380.56732824

Source	DF	Type I SS	Mean Square	F Value	Pr > F
OVERX	1	8576443.84511978	8576443.84511978	103.27	0.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
OVERX	1	8576443.84511978	8576443.84511978	103.27	0.0001

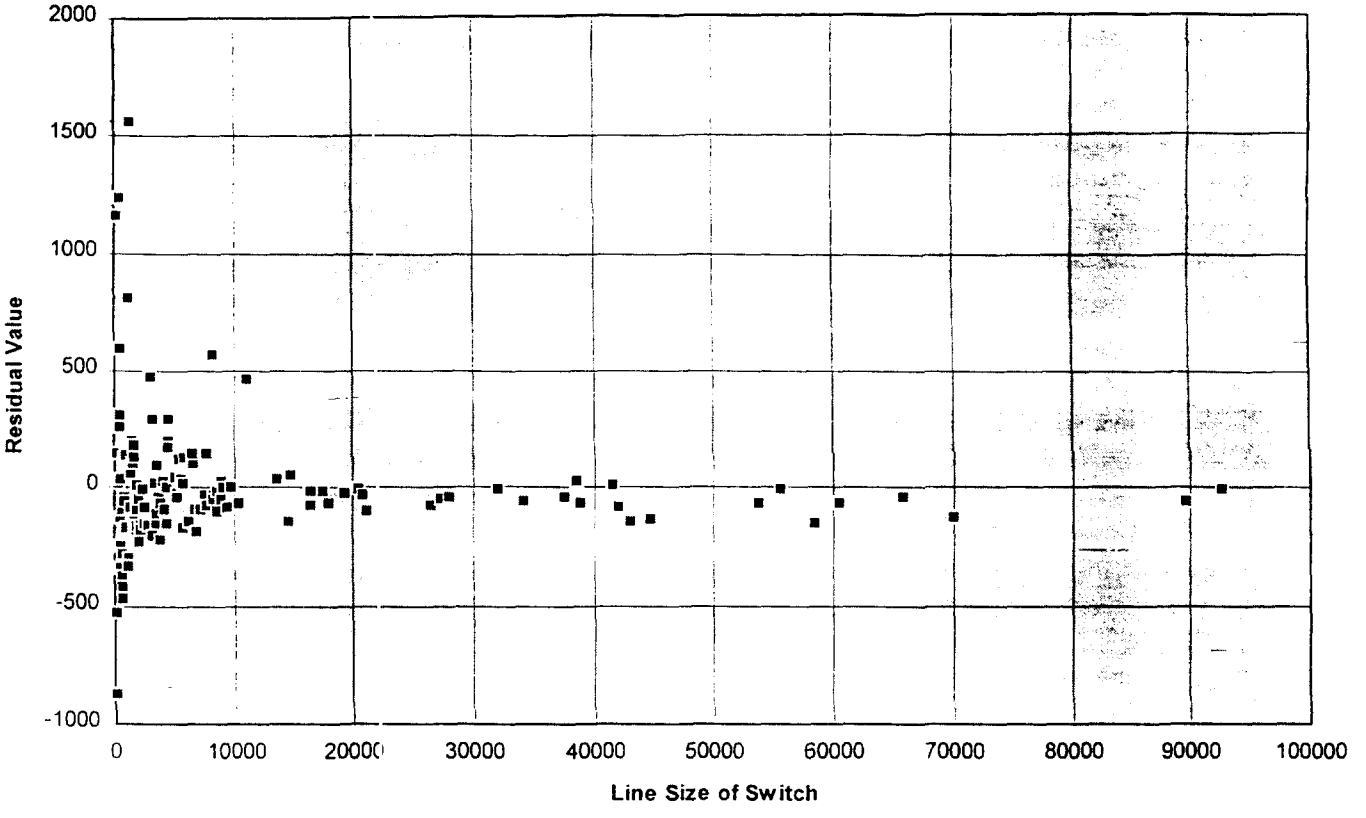
Parameter	Estimate	T for H0: Parameter=0	Pr > |T|	Std Error of Estimate
INTERCEPT	224.8097	7.63	0.0001	29.47736
OVERX	261870.9734	10.16	0.0001	25769.63982

Appendix E


Best of Breed Switch Curve:
Cost per Line=225+261871/lines
Investment per Line
3000
2500
2000
1500
1000
500
0
0
10000
20000
30000
40000
50000
60000
70000
80000
90000
100000
Line Size of Switch
Actual
Predicted

Appendix F

Best of Breed Switch Curve:
Analysis of Residual Values



All Wire Centers in
Abilene, Texas
(unable to run all SWB for this filing)

Resulting Copper Cable		
Cable Size	*Gauge*	*Length (ft)*
4200		10,459
3600		2,705
3000		3,607
2400		2,705
2100		6,255
1800		26,805
1200		23,551
900		63,693
600		88,557
400		53,726
300		42,583
200		170,684
100		1,813,966
50		1,259,735
25		30,087
18		-
12		3,467

Resulting Fiber Cable		
Cable Size		*Length (ft)*
288		-
144		-
96		-
72		-
60		14,353
48		19,648
36		20,984
24		24,668
18		10,478
12		473,368

Resulting Effective Fills		
Feeder		72%
Distribution		53%
Total		**60%**

Input

Density Fill Table

Density	Feeder	Distribution
0	75.00%	40.00%
11	80.00%	45.00%
51	80.00%	55.00%
151	85.00%	65.00%
501	85.00%	75.00%
2001	85.00%	80.00%
5001	85.00%	80.00%

BCPM Capital Cost & Expense Module

Account Capital Cost (Annual Basis)

Account	Economic Life (years)	Return	Depreciation	Federal Income Taxes	State Income Taxes	Other Taxes	Total Capital Cost Rate
Land	0	0.1139	0.0000	0.0474	0.0050	0.0068	0.1731
Motor Vehicle	8	0.0814	0.1085	0.0339	0.0036	0.0068	0.2342
Special Purpose Vehicles	10	0.0856	0.0757	0.0357	0.0037	0.0068	0.2075
Garage Work	12	0.0753	0.0812	0.0314	0.0033	0.0068	0.1979
Other Work	14	0.0772	0.0710	0.0321	0.0034	0.0068	0.1905
Building	42.5	0.0824	0.0250	0.0343	0.0036	0.0068	0.1521
Furniture	16	0.0837	0.0603	0.0349	0.0037	0.0068	0.1893
Office Support	11	0.0729	0.0896	0.0304	0.0032	0.0068	0.2028
General Purpose Computers	5.5	0.0671	0.1724	0.0279	0.0029	0.0068	0.2771
Switching	10	0.0812	0.0953	0.0338	0.0035	0.0068	0.2207
Circuit/DLC	8.5	0.0777	0.1154	0.0324	0.0034	0.0068	0.2356
Pole	30	0.0806	0.0680	0.0336	0.0035	0.0068	0.1925
Aerial Copper	12.5	0.0684	0.0915	0.0285	0.0030	0.0068	0.1982
Aerial Fiber	19	0.0756	0.0629	0.0315	0.0033	0.0068	0.1802
Underground Copper	11.5	0.0669	0.0908	0.0279	0.0029	0.0068	0.1953
Underground Fiber	19	0.0756	0.0603	0.0315	0.0033	0.0068	0.1776
Buried Copper	14	0.0707	0.0737	0.0295	0.0031	0.0068	0.1837
Buried Fiber	19	0.0756	0.0581	0.0315	0.0033	0.0068	0.1754
Conduit	50	0.0979	0.0227	0.0408	0.0043	0.0068	0.1726

Global Capital Cost Inputs

Financial Data

Return on Equity	13.1%
Debt Rate	7.8%
Debt Ratio	32.8%
Discount Rate	7.8%
Return on Capital	11.4%

Tax Data

Federal Tax Rate	35.0%
State Tax Rate	6.7%
Gross Receipts Tax	3.9%
Ad Valorem, Insurance, etc.	0.0%
Other Tax Rate	0.7%

Depreciation Data

Tax

Method	ACRS
Convention	Mid-Year
Flow Thru Normalization	Yes

Book

Use Survival Curves	Yes, use CGS
Convention	Mid-Year
ELG / VG	Equal Life Group
WL / RL	Remaining Life

Entity: Texas
Report Type:
Company - Single State

Total Annual Cost of Local Service =	**$3,668,187,571**
Uncapped State Average Monthly Cost=	**$31.18**
Capped State Average Monthly Cost=	**$31.14**

Capped Investment Cost Category	Number of Households
$0<=$ 5	0
$5<=$10	0
$10<=$15	0
$15<=$20	7,727
$20<=$25	475,251
$25<=$30	1,598,060
$30<=$35	1,596,642
$35<=$40	442,234
$40<=$45	210,304
$45<=$50	153,514
$50<=$55	95,473
$55<=$60	83,865
$60<=$65	92,092
$65<=$70	46,039
$70<=$75	44,495
$75<=$100	79,344
$100<=$150	30,260
$150<=$200	9,542
$200<=$250	384
$250<=$300	10
$300<=$500	0
$500<=$1000	0
$1000+	0
Total Households	4,965,236

Loop Category	Number of Households
0 <= 5Kft	164,985
5Kft <= 10Kft	1,010,356
10Kft <= 15Kft	1,327,184
15Kft <= 20Kft	1,048,423
20Kft <= 25Kft	590,126
25Kft <= 30Kft	301,791
30Kft <= 40Kft	261,195
40Kft <= 50Kft	119,032
50Kft <= 60Kft	59,330
60Kft <=70Kft	28,383
70Kft <= 80Kft	19,205
80Kft <= 90Kft	7,359
90Kft <= 100Kft	5,706
100Kft <=150Kft	19,997
150Kft <= 200Kft	1,652
200Ktf+	512

Loop Information	Length
Minimum Loop Length	1,081
Maximum Loop Length	229,966
Average Loop Length	16,590
Lines Above $10K Loop Inv	47,432

Column	Label	Formula	Explanation
A	CIli	Input	Unique eight (8) digit code provided by OnTarget data expanded to eleven (11) by matching it with LERG data.
B	Company	Input	The name of the Operating Company taken from the OCNAME column of the wire center BCM XCEL spreadsheets.
C	Company Size	Input	Companies are categorized as L = Large, M = Medium, S = Small.
D	Holding or Parent Company	Input	Holding or Parent Company of Operating Company.
E	Central Office Type	Input	H = Host Office, R = Remote Office, S = Stand Alone Office
F	Census Block Group Number	Input	The FIPS code of the Census Block Group. This is in the 12 character form ssccctttttg, where ss=state, ccc=county, ttttt=tract and g=group.From Census Bureau Tape SPF 3
G	Quadrant	Input	Calculated from Stopwatch data base where 1 = East, 2 = North, 3 = West and 4 = South.
H	Omega	Input	Calculated from Stopwatch data base.
I	Alpha	Input	Calculated from Stopwatch data base.
J	Centroid Distance Feet	Input	Calculated from Stopwatch data base. The distance, in feet with two fractional digits, from the Wire Center location to the centroid of the subject Census Block Group. This value takes into account the curvature of the earth.
K	Total House Holds	Input	Count of Households in the Census Block Group. This number is taken from the Census Bureau's 1990 figures, then modified for each CBG of a county by the Census Bureau's 1995 County by County population estimate. This is rounded to a whole number.

L	Total Business Lines	Input	Count of business lines in the CBG. This number is taken directly from the data of the BCM.
M	Area-sq Miles	Input	Determined from the boundaries extracted from the Census Bureau's TIGER files. Area of the CBG in square miles with 6 fractional digits. Low density CBG's are subject to a specific reduction in stated area, based on the road network.
N	Depth to Bedrock (Inches)	Input	Average minimum depth to bedrock for the CBG, expressed in inches up to 2 fractional digits.
O	Rock Hardness	Input	Predominant rock hardness for the CBG. Hard or soft, or blank to indicate neither.
P	Surface Soil Texture	Input	Predominant surface soil texture in the CBG, an abbreviation of up to 7 characters.
Q	Water Table Depth (Feet)	Input	Average minimum water table depth for the CBG, expressed in feet with up to 2 fractional digits.
R	Minimum Soil Slope	Input	Average minimum ground slope for the CBG, expressed with 2 fractional digits.
S	Maximum Soil Slope	Input	Average maximum ground slope for the CBG, expressed with 2 fractional digits.
T	New Terrain Variable	Input	This field is empty. The last character of each of these records will be a comma, indicating that a field is logically present but actually missing at the end.
U	Density-Total HH/Sqmi	=IF(M2=0,0,(K2+L2/DensAdjUnits)/M2)	Calculates the number of House Holds and Business Units per sq. mile.
V	Total CBG Lines Served	=(K2*ResLinesMultiplier)*VLOOKUP(U2,MarketShareTable,2)+L2*VLOOKUP(U2,MarketShareTable,3	Calculates total residence and business lines served in a CBG. Total residence lines are derived by multiplying Total

		)	House Holds (K2) by the ResLinesMultiplier (the ratio of 1995 lines from ARMIS to 1995 House Holds from NECA data) all multiplied by MarketShare. Total Business lines (L2) are multiplied by MarketShare and added to total residence lines.
W	Total "B" Distance	=IF(R2>MinSlopeTrigger,IF(S2>MaxSlopeTrigger, CombSlopeFactor,MinSlopeFactor),IF(S2>MaxSlopeTrigger,MaxSlopeFactor,1))*J2*COS((PI()/180)*I2)	Calculates terrain adjusted length of feeder cable from CO to centroid of CBG and converts air miles to route miles.
X	Segment A	=J2*SIN((PI()/180)*I2)*IF(R2>MinSlopeTrigger,IF(S2>MaxSlopeTrigger,CombSlopeFactor,MinSlopeFactor),IF(S2>MaxSlopeTrigger,MaxSlopeFactor,1))	Calculates terrain adjusted length of sub-feeder cable from CO to centroid of CBG and converts air miles to route miles
Y	Segment D	=IF(R2>MinSlopeTrigger,IF(S2>MaxSlopeTrigger, CombSlopeFactor,MinSlopeFactor),IF(S2>MaxSlopeTrigger,MaxSlopeFactor,1))*SQRT(M2)*5280	Calculates terrain adjusted length of the side of a CBG, assuming a square CBG.
Z	Total Route Distance to CBG	=IF(X2>(0.5*Y2),W2+X2-(0.5*Y2),W2)	Calculates total length of feeder, i.e. total "B" distance plus segment A, to the edge of the CBG.
AA	"A" Sub Feeder Distance	=Z2-W2	Calculates the subfeeder length between the end of the main feeder segment to the edge of the CBG.
AB	Number of lots in CBG	=J2*(VLOOKUP(T2,DensityHhTable,2)+(1-VLOOKUP(T2,DensityHhTable,2))/VLOOKUP(T2,DensityHhTable,3))	The number of lots in a CBG are based on the proportion of single family residences and HH per multi-family residence for a given density zone, i.e. Number of lots in CBG=Total House Holds * (% single family + (1-% single family/HH per multi-family)).
AC	Number of Lots per Base Side	=IF(SQRT(AB2)<2,2,CEILING(SQRT(AB2),1))	Determines the number of lots per CBG side with a minimum of two.
AD	Base Lot Side Length	=Y2/AC2	Calculates the length of one side of a lot.

AE	Maximum Loop Distance within the CBG	=(1.5*Y2)-(2*AD2)	Calculates maximum loop distance adjusted to prevent placement from boundary to boundary within the CBG.
AF	Surface Indicator	=IF(ISBLANK(P2),0,IF(ISERROR(VLOOKUP(P2,SurfaceTextureTable,2))=TRUE,0,VLOOKUP(P2,SurfaceTextureTable,2)))	Determines whether the terrain condition for surface texture effects the placement cost of the facility.
AG	Copper Depth Condition	=IF(AND($N2<=NormalUGDepth,$O2="HARD"),1,IF(AND($N2>NormalUGDepth,$AF2=0),3,2))	This formula determines whether additional placement costs will be caused due to bedrock being within the normal placement depth of copper facilities and if the bedrock is described as hard. If the depth to bedrock in column M is
			less than or equal to the normal placement depth of copper facilities, in cell C4 of the Misc. Inputs tab, and the value of rock hardness in Column N equals "Hard", then the placement difficulty condition equals 1. If the depth to
			bedrock in column M is greater than the normal placement depth of copper facilities, then the placement difficulty condition equals 3. Otherwise, the placement difficulty condition equals 2.
AH	Fiber Depth Condition	=IF(AND($N2<=NormalFiberDepth,$O2="HARD"),1,IF(AND($N2>NormalFiberDepth,$AF2=0),3,2))	This formula determines whether additional placement costs will be caused due to bedrock being within the normal placement depth of fiber facilities and if the bedrock is described as hard. If the depth to bedrock in column M is
			less than or equal to the normal placement depth of fiber facilities, in cell C5 of the Misc. Inputs tab, and the value of rock hardness in Column N equals "Hard", then the placement difficulty condition equals 1. If the depth to
			bedrock in column M is greater than the normal placement depth of fiber facilities, then the placement difficulty condition equals 3. Otherwise, the placement difficulty condition equals 2.
AI	New Terrain and Water Cost Multiplier	=IF(T2>NewTerrainTrigger,NewTerrainFactor,1)*IF(Q2<CriticalWaterDepth,1+(WaterFactor/100),1)	Multiplier currently equals 1. Logic included in order to accommodate future variable that identifies extraordinary terrain conditions.

AJ	Main Feeder Segment Total Distance	=IF(AND(A2=A1,G2=G1),W2-W1,W2)	This formula calculates the feeder cable segment length immediately adjacent to the CBG.
AK	Block Group Sequence Number	=IF(OR(NOT(G2=G1),NOT(A2=A1)),1,AK1+1)	This formula provides a sequence number for each CBG in Quadrant. If the CLLI code or the Quadrant are not the sam as the prior CBG, the result is 1. If they are the same, it adds 1 to the sequence number of the prior CBG.
AL	Number of Feeder legs in CBG	=IF(Y2-(2*AD2)<=0,1,CEILING((Y2-(2*AD2))/(2*CprMaxDistr),1))	This formula calculates the number of feeder legs required by dividing the length of a CBG side (less two lots) by the maximum copper distribution length, rounding any fraction up to the nearest whole number.
AM	Number of Lines per Feeder Leg	=V2/AL2	The Number of Lines per Feeder Leg is calculated by dividing Total CBG Lines Served by the Number of Feeder Legs in CBG.
AN	CLLIQUAD	=A2&G2	This cell is a combines of the CLLI code and Quadrant number text entries into a single text word.
AO	Distribution Vertical Distance per Feeder	=IF(((Y2/AL2)-(2*AD2))<1,Y2/AL2,(Y2/AL2)-(2*AD2))	This formula calculates the vertical distance of the distribution cable in a CBG adjusting for those cases where a CBG or feeder has one or two lots on a side. This adjustment prevents the anomalous result of negative vertical distribution lengths.
AP	Potential Max Horizontal Copper Distribution Distance	=IF(CprMaxDistr-(AO2/2)>0,CprMaxDistr-(AO2/2),0)	This formula calculates the Potential Max Horizontal Coppe Distribution Distance by determining whether the maximun length of copper cable in a CBG distribution area (default value = 12,000 feet) minus half of the distribution vertical distance
			per feeder is greater than zero. If greater than zero then th Potential Max Horizontal Copper Distribution Distance is th maximum length of copper cable in a CBG distribution area minus half of the distribution vertical distance.

AQ	Number of Lots Between Terminals	=IF(AP2>((Y2-AD2)/2),AC2,(INT(AP2/AD2)+1)*2)	The Number of Lots Between Terminals equals the Number of Lots per Base Side if the Potential Max Horizontal Copper Distribution Distance is greater than one half of a CBG side minus one lot. If the previous condition is not met then the Number
			of Lots Between Terminals equals twice the integer value of the Potential Max Horizontal Copper Distribution Distance per Base Lot Side Length plus one.
AR	Number of Distribution Legs	=IF(AC2<2.1,EVEN(AC2)/2)	The Number of Distribution Legs is one half of the Number of Lots per Base Side rounded up to an even number if the Number of Lots per Base Side is greater than 2. If there are fewer than 2 Lots per base side then the Number of Distribution Legs equals 1.
AS	Number of Distribution Vertical Legs per Terminal	=IF(AQ2>=AC2,AR2,AQ2/2)	The Number of Vertical Legs per Terminal equals the number of Distribution Legs if the Number of Lots Between Terminals is greater than or equal to the Number of Lots per Base Side, otherwise it equals one half of the Number of Lots Between Terminals.
AT	Number of Terminal Locations per Feeder Leg	=CEILING(AR2/AS2,1)	The Number of Terminal Locations per Feeder Leg equals the Number of Distribution Legs divided by the Number of Distribution Vertical Legs per Terminal rounded up to the next integer.
AU	Special Access Lines in CBG	=L2*SpecAccRatio	This formula calculates the number of special access lines per CBG based on the special access ratio in cell C37 of the Misc. Inputs Tab.
AV	Lines in CBG Provisioned as DS-1s	=AU2*VLOOKUP(V2,VoiceGradeRatioTable,5)+CF 2*VLOOKUP(V2,VoiceGradeRatioTable,3)	The number of DS-1's per CBG is calculated by applying the % of special access lines served by DS1's and the % switched lines on DS1 from the Voice Grade Ratio Table in the Percent Table
			Inputs tab to the number of special access lines per CBG and switched access lines per CBG in columns AS and CD, respectively.

AW	Segment Type 1	=IF(AND((W2+AA2+AE2)<Breakpoint,((V2-AV2+AV2/12)/VLOOKUP(U2,DensityFillTable,2))<MaxDistrSize),"Cable",IF(AND((W2+AA2+AE2)>=Breakpoint,(AM2/AT2)/ElectronicFill<=240),"DLC-S","DLC-L"))	This formula determines the type of facility technology needed for the CBG. This is determined by calculating the total loop length (i.e. the sum of the "B" distance (col. V), "A" feeder distance (col. Z) and the max. loop distance (col. AC))
			and comparing it with the Breakpoint (Fixed Tables tab, Misc. Calc. table). If total loop length is less than the Breakpoint and the cable size is less than the max. distrib. cable size (see,Misc. Inputs tab, Cable & Wire Inputs table, cell C8)
			then copper "Cable" is placed. If the total loop length exceeds the Breakpoint the facility is fiber on a DLC-S if there are fewer than 240 lines per terminal location and fiber on DLC-L if there are more than 240 lines per terminal.
AX	Segment Type 2	=IF(OR(AK3=1,ISBLANK(AW3),AND(AN2=AN3,AW2=AW3,ISBLANK(AX3))),"",IF(NOT(AW2=AW3),AW3,AX3))	This formula determines if a second facility type must be provided in the feeder segment. If any block group further from the wire center requires different facilities than the current block group, it shows the second required facility.
AY	Segment Type 3	=IF(OR(AK3=1,ISBLANK(AW3),AND(AN2=AN3,AX2=AX3,ISBLANK(AY3))),"",IF(NOT(AX2=AX3),AX3,AY3))	This formula determines if a second facility type must be provided in the feeder segment. If any block group further from the wire center requires different facilities than the current block group, it shows the second required facility.
AZ	Total Lines on Copper	=IF(AW2="Cable",IF(OR(AK3=1,AND(NOT(AK3=1),NOT(AW2=AW3),NOT(AX2="Cable"),NOT(AY2="Cable"),NOT(AX3="Cable"),NOT(AY3="Cable")),ISBLANK(AZ3)),V2-AV2+AV2/12,(V2-AV2+AV2/12)+AZ3),IF(OR(AX2="Cable",AY2="Cable",AND(AN2=AN3,AZ3>0)),AZ3,0))	This formula accumulates the total number of lines served on copper in a CBG.
BA	Total Lines on a large DLC (DLC-L)	=IF(AW2="DLC-L",IF(OR(AK3=1,AND(NOT(AK3=1),NOT(AW2=AW3),NOT(AX2="DLC-L"),NOT(AY2="DLC-L"),NOT(AX3="DLC-L"),NOT(AY3="DLC-L")),ISBLANK(BA3)),V2,V2+BA3),IF(OR(AX2="DLC-L",AY2="DLC-	This formula accumulates the total number of lines served on large DLC (DLC-L) in a CBG.

		L",AND(AN2=AN3,BA3>0)),BA3,0))	
BB	Total Lines on small DLC (DLC-S)	=IF($AW2="DLC-S",IF(OR($AK3=1,AND(NOT($AK3=1),NOT($AW2=$AW3),NOT(AX2="DLC-S"),NOT(AY2="DLC-S"),NOT(AX3="DLC-S"),NOT(AY3="DLC-S")),ISBLANK(BB3)),$V2,$V2+BB3),IF(OR($AX2="DLC-S",$AY2="DLC-S",AND(AN2=AN3,BB3>0)),BB3,0))	This formula accumulates the total number of lines served on small DLC (DLC-S) in a CBG.
BC	Copper Main Feeder (B Segment) Pairs Needed	=AZ2/VLOOKUP(U2,DensityFillTable,2)	This formula calculates the total copper main feeder pairs needed by dividing the total lines on copper by the appropriate feeder fill (Percent Table Inputs tab, Density Fil Table, column 2 (Feeder)).
BD	Number of Max Size Main Feeder Copper Cables	=TRUNC(IF(BC2>MaxFeederSize,BC2/MaxFeederSize,0))	This formula calculates the number of main feeder copper cables required by dividing the number copper main feede pairs needed by the maximum feeder cable size (Misc. Inputs tab, Copper &
			Wire Inputs table, cell C7). If the number feeder pairs is les than the maximum size feeder cable the formula reports 0. Non-zero values are truncated.
BE	Residual Copper Main Feeder Size	=IF(NOT(BC2=0),INDEX(FeederCableSize,MATCH(BC2-(MaxFeederSize*BD2),FeederCableSize,-1),1),0)	This formula calculates the size of the residual copper feeder cable required in the feeder segment. It reports the next largest cable size above the actual pairs required afte all pairs assigned to maximum cable sizes are subtracted.
BF	Copper Cable Structure %	=IF(AND(NOT(AW2="Cable"),NOT(AX2="Cable"),NOT(AY2="Cable")),0,IF(BD2>0,Over4200,IF(OR(AW2="DLC-S",AX2="DLC-S",AY2="DLC-S",AW2="DLC-L",AX2="DLC-L",AY2="DLC-L"),VLOOKUP(BE2,StructureAllocationTable,2),1)	This formula determines the percent of structure assigned to copper facilities. See Percent Table Inputs, Structure Allocation Table, Cable Structure %.

		))	
BG	Fiber Structure %	=1-BF2	Fiber structure percent is defined as 1 - Copper Cable structure percent.
BH	Subfeeder (A Segment) Copper Feeder Pairs Needed	=IF(AW2="Cable",V2/VLOOKUP(U2,DensityFillTable,2),0)	This formula determines subfeeder segment type 1 feeder pairs required by dividing segment type 1 pairs by the appropriate fill factor.
BI	Number of Max Size Subfeeder Copper Cables	=TRUNC(IF(BH2>MaxFeederSize,BH2/MaxFeederSize,0))	This formula calculates the number of maximumsize subfeeder cooper cables required in the CBG.
BJ	Subfeeder Copper Cable Size	=IF(BH2=0,0,INDEX(FeederCableSize,MATCH(BH2-(MaxFeederSize*BI2),FeederCableSize,-1),1))	This formula calculates the size of the subfeeder copper cable required. It uses the Feeder Cable Size table to searc and report back. It reports the next largest feeder cable siz above the
			number of actual pairs required after all pairs are assigned to maximum cable sizes are subtracted.
BK	Number of Main Feeder segments in quadrant	=IF(A2=0,0,IF(AND(A2=A3,G2=G3),BK3+1,1))	This formula counts the number of feeder segments in a quadrant.
BL	Longest Actual Horizontal Copper Distribution Distance	=IF(AQ2=AC2,INT((AC2-1)/2)*AD2,((AQ2/2)-1)*AD2)	This formula calculates the longest horizontal copper distribution distance in a CBG.
BM	Horizontal Fiber Feeder Cable Length	=Y2-AD2-BL2	This formula determines the length of the horizontal fiber feeder cable by subtracting from the side of a CBG the bas lot size and the longest actual horizontal copper distributio distance.
BN	Total Horizontal Copper Cable Length	=BL2*2*AT2*AL2	This formula determines the total horizontal copper cable length based on the longest actual horizontal copper distribution distance, the number of terminal locations per feeder leg and the number of feeder legs in CBG.

BN			
BO	# Voice Grade Lines Equipped per Terminal Location	=IF(AW2="DLC-S",CEILING((AM2/AT2)/ElectronicFill,6),IF(AW2="DLC-L",CEILING((((CF2*VLOOKUP(V2,VoiceGradeRatioTable,2)+AU2*VLOOKUP(V2,VoiceGradeRatioTable,4))/AL2)/AT2)/ElectronicFill,4),0))	This formula calculates the number voice grade lines per terminal location adjusted for electronic fill.
BP	# DLC-L Systems at Full Capacity	=TRUNC(BO2/2016)	This formula calculates the number of large DLC (DLC-L) systems functioning at a capacity of 2016 voice grade circuits per system. This calculated by dividing the number of voice grade lines equipped per terminal location by 2016.
BQ	# Switched Lines in Overflow DLC-L Terminal	=BO2-(2016*BP2)	This formula determines the number switched lines above the capacity of the DLC-L's.
BR	# Lines at DS-1 per Terminal Location	=IF(AW2="DLC-L",((AV2/AL2)/AT2)/HiCapFill,0)	This formula calculates the number of segment type 1 lines at the DS-1 rate per terminal location adjusted for fill.
BS	# DS-3/DS-1 Units per Terminal Location	=CEILING(BR2/2016,1)	Calculates the number of DS-1's per terminal location.
BT	Total # Terminal Locations in CBG	=AT2*AL2	Calculates the total number of terminal locations in a CBG by multiplying the number of terminal locations per feeder leg by the number of feeder legs in a CBG.
BU	# Fibers Required per Terminal Location	=IF(AW2="Cable",0,IF(AW2="DLC-S",4,(BP2+1+BS2)*4))	Determines the number of fibers per terminal location where the number of fibers per small DLC (DLC-S) is 4 and 4 per each large DLC (DLC-L) system.
BV	Total Number Fibers per Feeder Leg	=IF(BO2=0,0,IF(AW2="Cable",0,IF(AW2="DLC-L",CEILING(AT2*(BP2+1)*4*IF(BO2<2016,BO2/2016,1)+BS2*4*AT2,4),CEILING((AT2*BU2)/TRUNC(672/BO2),4))))	Calculates the number of fibers per feeder leg where appropriate.
BW	Total # Fibers For CBG	=BV2*AL2	Calculates the total number of fibers in a CBG by multiplying the total number of fibers per feeder leg by the